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THE FAMILY ANTHRIBIDAE OF JAPAN (COLEOPTERA). PART 1"

KATSURA MORIMOTO

Entomological Laboratory, Faculty of Agriculture
Kyushu University, Fukuoka 812, Japan

Abstract

Japanese species of the tribes Apolectini, Notioxenini, Araecerini, Choragini, Anthribini, Euparіini, Ozotomerini and Basitropini of the family Anthribidae are revised. Twelve new species and a new subspecies described in this paper are ***Notioxenus nakanei, N. nitidus, Stenorhis hirashimai, Deropygus*** *flavicollis*, ***Araecerus ishigakiensis,*** *Melanopsacus* ***makiharai,*** *M.* ***kinke, Euparius concolor, E. boninensis, E.*** *modicus* ***yaeyamanus, Ozotomerus amamianus, 0.*** *nigromaculatus* and ***Basitropis seinoi. Deropygus didymus*** Jordan and ***Araecerus varians*** Jordan are recorded from Japan for the first time. ***Anthribus vandykei*** Jordan is sunk as a synonym of ***kuwanai*** Yuasa.

The Anthribidae are a rather large family of the superfamily Curculionoidea comprising nearly 2,900 species from the world. They are abundant in the tropical and subtropical regions, and fewer in the colder regions.

As to the fauna of Japan, descriptions and records were published by Thunberg (1815), Lewis (1879), Roelofs (1879, SO), Sharp (1891), Yuasa (1931), Miwa (1937), Kanazawa (1949), Johraku (1963), Nakane (1963, 78) and Shibata (1963, 69, 78), and 99 species are listed at present.

In making preparations of the present revision, I have examined many types described by Jordan, Pascoe, Roelofs and Sharp at the British Museum (Natural History) in 1968, and the Oriental genera were already revised in 1972. This is the first part of the revision and the continuation will be published in this journal in a series of papers.

The specimens examined in this paper are mainly from the collection of the Entomological Laboratory, Kyushu University, and partly from the Entomological Laboratory, Ryukyu University, and the National Science Museum, Tokyo, and also private collections of Messrs. H. Fujita, I. Him-a, A. Iwasaki, T. Johraku, Dr. S. Kimoto, Dr. K. Kojima, S. Kuniyoshi, H. Makihara, T. Mikage, Y. Miyake, Dr. S. Miyamoto, Y. Miyatake, **J.** Nagao, Dr. T. Nakane, T. Ogasawara, K. Ohtsuka, Dr. H. Sasaji, M. Sato, T. Seino, Dr. T. Shirôzu, M.

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[1] Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 3, No. 52).

Takakuwa and T. Takara. To these entomologists I wish to thank for their generous cooperations on specimens. My thanks are also due to Mr. R. T. Thompson, British Museum (Natural History), for his kind help in various ways.

I acknowledge my indebtedness to Prof. Y. Hirashima for his kind guidance and encouragement in the course of the present study.

Unless otherwise stated, types are preserved in the Entomological Laboratory, Faculty of Agriculture, Kyushu University.

Tribe APOLECTINI

Apolectides Lacordaire, Gen. Col. VII. 554, 1866.
Apolectini Morimoto, Bull. Gov. Forest Exp. Sta., (246) : 37, 1972.

Apolecta Pascoe

Apolecta Pascoe, Ann. Mag. Nat. Hist. (3) IV: 431, 1850 (Type : *Mecocerus parvulus* Thomson, by original designation).

Apolecta lewisii Sharp (Photo. A)

Apolecta lewisii Sharp, Trans. Ent. Soc. London, 1891: 318, 1891 (Nikko, Kashiwagi, Kurigahara).

Apolecta Lewisi, Wolfrum, Col. Cat. Anthribidae : 102, 1929.

Specimens examined: 25 exs. from Aomori, Shizuoka, Kôchi, Fukuoka, and Ôita Pref.

Distribution: Japan (Hokkaido, Honshu, Shikoku, Kyushu) .

Tribe NOTIOXENINI

Notioxénides Lacordaire, Gen. Col. VII: 593, 1866.
Notioxenini Morimoto, Bull. Gov. Forest Exp. Sta., (246) : 37, 1972.

Notioxenus Wollaston

Notioxenus Wollaston, Journ. Ent. 1: 212, 1861 (Type : *Notioxenus bewicki* Wollaston, designated by Basilewsky, 1972).

Notioxenus wollastoni Sharp (Photo. B)

Notioxenus wollastoni Sharp, Trans. Ent. Soc. London, **1891:** 327, 1891 (Higo).

Specimens examined: ***1 ex.,*** Mt. Maya, Kobe, 3. IX. 1953, Y. Wada leg.; Kajigamori, Kôchi Pref., **25. VII.** 1952, K. Morimoto leg. ; lex., Okinoshima, Kôchi Pref., **22. VI.** 1955, K. Sugimoto leg. from dead trunk of *Citrus natsudaidai* ; 1 ex., Mt. Iwayasan, Nagasaki City, 3. VIII. 1957, H. Kamiya leg. ; 1 ex., Cape Sata, Kagoshima Pref., 23. V. 1955, K. Sawada leg.; 1 ex., Takarajima, Tokaras, 5. VI. 1962, M. Sato leg.

Distribution : Japan (Hokkoido, Honshu, Shikoku, Kyushu, Takarajima Isl.).

Notioxenus tomicoides Sahrp (Fig. 1, E)

Notioxenus tomicoides Sharp, Trans. Ent. Soc. London, 1891: 328, 1891 (Togami near Nagasaki).

Specimen *examined: 1 ex.,* Tomioka, Amakusa, 13. V. 1960, K. Morimoto leg.

Distribution : Japan (Kyushu, Nakanoshima Isl. [after Nakane, 1963]).

***Notioxenus nakanei* sp. nov.** (Fig. 1, A, B)

Derm shiny black with greenish lustre, with legs, rostrum, mouth part and two basal segments of antennae brown, the rest of antennae and anterior margin of pronotum brownish black; without dorsal vestiture.

Head entirely concealed from above by pronotum, densely and wrinkled punctate, interstices narrower than punctures, finely shagreened ; clothed with whitish shaggy, anteriorly inclined hairs in male, and with fine hairs on the anterior margin in female, interscrobal area three-fourths as broad as interocular area, with fine short median carina in male; eyes oval, the upper edges a little closer to each other than the lower. Rostrum with the anterior margin slightly and evenly arcuate, distance between lower margin of scrobe and apex slightly shorter than 1st segment of antenna; mandibles sulcate on the basal two-thirds, with a small antemedian tooth. Antennae reaching backwards behind the middle of pronotum, 1st segment broadest at the base, 2nd segment clavate, curved, 3rd segment one-third as long as 2nd, 5th segment long, cylindrical, 6th and 7th segments subequal in length, 8th segment a little shorter than 7th, 9th, 10th and 11th forming asymmetrical club, 9th and 10th subtriangular.

Pronotum as broad as long and as broad as elytra, evenly convex dorsally, broadest at basal fourth, thence strongly arcuate anteriorly to form a continuous arc with anterior margin, slightly arcuate posteriorly to dorsal carina ; dorsal carina evenly arched posteriorly and close to posterior margin at middle, continued forward in a slight curve on sides to a point above anterior edge of coxal cavity; disc densely and strongly punctate, their interstices much narrower than their diameters, punctures becoming smaller anteriorly near anterior margin, where the interstices nearly as broad as the diameters.

Elytra one-third longer than pronotum, truncate and well marginated at base, broadest a little behind humeri, thence parallel-sided for a short distance, rounded and narrower posteriorly; striae with large punctures, the punctures much larger than those on pronotum and becoming smaller toward apex behind middle; intervals with a row of punctures, which are a little smaller than those on adjacent striae, setae in punctures minute, almost invisible.

Legs with hind femora a little longer than the others; tibiae nearly straight, weakly dilated distally; tarsi with 1st segment 1.5 times as long as wide.

Sternum with prosternum strongly punctate as on pronotum on sides and finely shagreened before coxae, fore coxae very narrowly separated, middle coxae as widely separated as the base of middle femur; metasternum weakly punctate, metepisterna with a row of indistinct punctures. Venter similarly punctate as on metasternum. Pygidium one-third longer than wide, weakly punctate on sides, finely hairy in male; as long as wide and evenly punctate in female.

Length* : 1.68 mm, breadth: ***0.75*** mm.

Type ♀ : Higashiko, Haha-jima, Ogasawara Isls., 5. VI. 1976, T. Nakane leg. (in the collection of the National Science Museum, Tokyo).

* As length I give the distance from the anterior margin of the pronotum to the apex of pygidium in a straight line.

Paratype: 1♂, Kitamura, Haha-jima, Ogasawara Isls., 4. VI. 1976, T. Nakane leg.

Distribution : Japan (Ogasawara Isls.: Haha-jima).

Notioxenus nitidus sp. nov. (Fig. 1, C, D)

Derm reddish brown to brownish black with blassy lustre, with legs, rostrum, mouth part and some basal segments of antennae yellowish brown to brown ; without dorsal vestiture.

Head usually entirely concealed from above by pronotum, moderately provided with fine punctures, interstices broader than punctures ; clothed evenly on head and rostrum with shaggy, whitish, anteriorly inclined hairs in male, clothed with a few fine hairs on frons and rostrum in female; interscrobal area four-fifths as broad as interocular area. Rostrum with the anterior margin very slightly arcuate, distance between lower margin of scrobe and apex shorter than 1st segment of antenna; mandibles sulcate on the basal two-thirds, with a small antemedian tooth. Antennae reaching backwards a little behind the middle of pronotum, 1st segment broadest at base, 2nd segment clavate, curved, nearly as long as following four segments taken to-

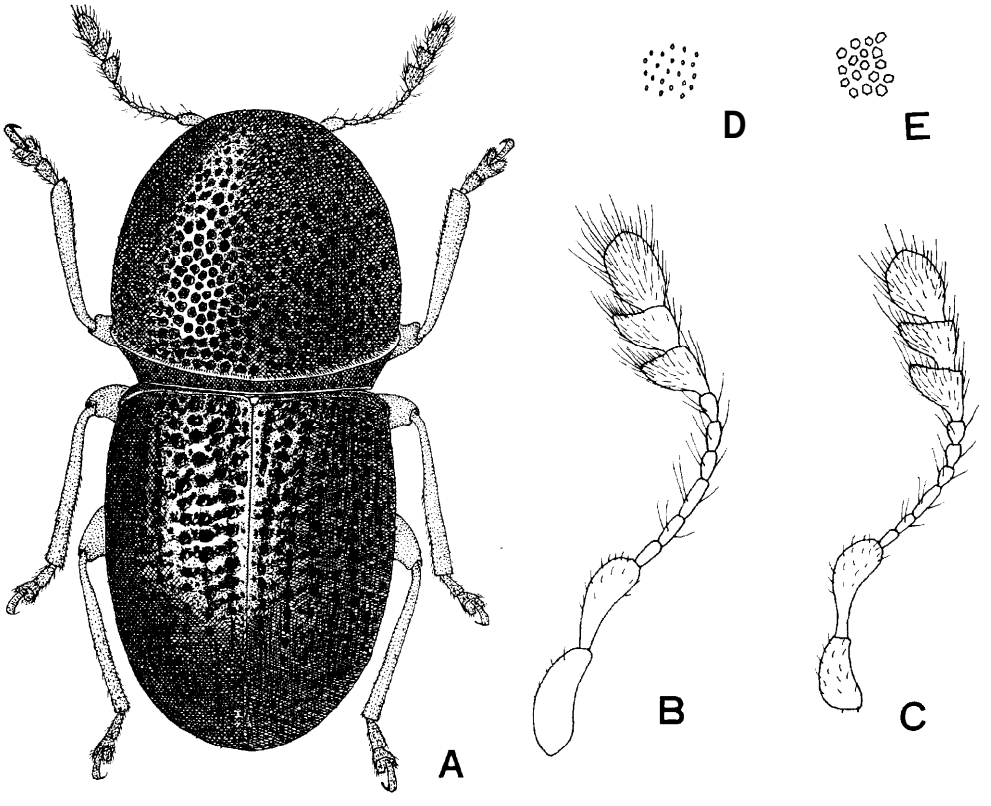


Fig. 1. *Notioxenus* spp. A: ***nakanei,*** female. B: Antenna of ***nakanei.*** ***C:*** Antenna of *nitidus*. D: Punctation at the center of pronotum of nitidus. E: The same of ***tomicoides.***

gether, 3rd segment a little shorter than 4th, 5th segment cylindrical, 6th and 7th segments equal in length, 8th segment as long as wide, slightly shorter than 7th, club similar to that of *nakanei*.

Pronotum as long as wide and very slightly narrower than elytra (15 :16), broadest at basal third, sides evenly arcuate, anterior angles obtuse; dorsal carina evenly arched posteriorly and close to posterior margin at the middle, continued forward in a slight curve on sides to a point above anterior margin of coxal cavity; disc moderately with small punctures, their interstices broader than their diameters.

Elytra one-third longer than pronotum, truncate and well marginate at base, broadest at basal third, the sides evently curved; striae with the interstices of punctures on the same level as intervals, the punctures as large as or slightly larger than those on pronotum and becoming smaller behind declivity ; intervals with a row of fine punctures, the punctures much smaller than those on adjacent striae, setae in punctures minute, almost invisible.

Legs similar to those of *nakanei*. Sternum with prosternum strongly punctate on sides, the punctures much larger than those on pronotum, more or less longitudinally confluent, the punctures obsolete and finely shagreened before coxae; meso- and metasterna and venter similar to *nakanei*. Pygidium longer than wide (11: 9) in male and as long as wide in female, more or less shagreened, sparsely with small punctures and recumbent hairs.

Length :1. 30−1. 65 mm, breadth : 0.58-o. 76 mm.

Type ♂ (Type No. 2106, Kyushu Univ.), Kuchinoshima, Tokaras, 26. VI-3. VII. 1969, H. Makihara leg.

Paratypes: 8 ♀, Okinoerabu Isl. 31. VII-Z. VIII. 1969, H. Makihara leg. ;1 ♀, same data as type; 1 ♂, Naha, Okinawa, 23. X. 1963, S. Miyamoto leg.; 1 ♀, Nishinakama, Amami-Oshima, 4. VIII. 1969, H. Makihara leg. ;2 ♀ , Yoshihara, Ishigaki Isl., 16. X. 1963, S. Miyamoto leg.

Distribution : Japan (Kuchinoshima, Amami-Oshima, Okinoerabu, Okinawa and Ishigaki Isls.)

Among the known species of the genus *Notioxenus*, *N. tomicoides*, *nakanei*, *nitidus* and *fulgidus* are very close to one another in having the large pronotum, the bare and shiny derm and the asymmetrical clubs of the antennae, but they are separable by the characters noted in the following key.

1 : Prothorax broadr than elytra ; elytra with the intervals not punctate; pygidium as long as wide in male, about one fourth broader than long in female. (Guam) ..... **Notioxenus fulgidus** Zimmerman

1' : Prothorax at most as broad as elytra; intervals of elytra with a row of punctures; pygidium longer than wide in male and nearly as long as wide in female 2

2 : Pronotum with the sides arcuate anteriorly to form *a* continuous arc with the anterior margin, anterior angles obsolete; disc strongly punctate, their interstices narrower than their diameters 3

2' : Pronotum with obtuse antero-lateral angles ; disc moderately with small punctures, their intersitces broader than their diameters; elytra smoother, striae with the interstices of punctures on the same level as intervals ..... **Notioxenus nitidus** Morimoto

3 : Pronotum densely and strongly punctate, their interstices only half as broad as their diameters, transverse narrow area behind dorsal carina with a row of punctures at middle, dorsal carina close to basal margin at middle ..... **Notioxenus nakanei** Morimoto

3' : Pronotum densely punctate, their interstices a little narrower than their diameters, transverse narrow area behind dorsal carina with two rows of punctures, one just behind the carina and the other above the posterior margin and with several punctures between them; dorsal carina not close to the basal margin at middle ..... **Notioxenus tomicoides** Sharp

Tribe ARAECERINI

Araeockrides Lacordarie, Gen. Col. VII: 588, 1866.
Araecerini Valentine, Trans. Amer. Ent. Soc., LXXXVI: 48, 1760.

Stenorhis Jordan

Stenorhis Jordan, Ins. Samoa, IV, Col. 2: 167, 1928 (Type: *Stenorhis ampedus* Jordan, by original designation).

***Stenorhis hirashimai* sp. nov. (Fig. 2)**

♂. Derm castaneous brown ; pubescene brownish variegated with whitish grey ; scaly markings diffuse : whitish scales forming vague patches on pronotum along anterior margin, subapical transverse band, a small spot on each side near hind angle and a pair of comma-shaped large ones near the base, and also forming three bands on elytra, a post-scutellar oblong patch on first intervals as far as anterior fascia, and several patches on the basal and lateral margins of elytra.

Head densely with piliferous punctures, interscrobal area one-seventh as wide as interocular area. Rostrum very short, strongly punctate. Antennae inserted in sockets, 1st segment one-third longer than and as broad as 2nd, 3rd to 8th segments slender, 3rd segment a little longer than 4th, 4th to 8th segments subequal in length, club as long as 1st to 5th segments together, as broad as 1st, 9th segment as long as 11th and a little longer than 10th.

Pronotum broader than long (6 :5), broadest at the base, almost parallel-sided on basal third and strongly curved and narrowed thenceforwards; disc densely punctate, evenly convex ; angles of carina very little larger than 90°, lateral carina extending almost to the anterior margin.

Elytra one-third longer than broad, as broad as pronotum, parallel-sided on basal two-thirds; truncate at the base; intervals flat, with piliferous fine granules; striae much narrower than intervals, interstices of punctures narrower than the punctures and on the same level as intervals.

Pygidium densely with large punctures, rounded at apex, marginate with glossy carina along apical margin. Femora clavate ; tibiae straight, middle and hind tibiae with ascended tarsal groove; tarsi with 3rd segment not bilobed.

Underside densely punctate, the punctures slightly larger on prosternum.

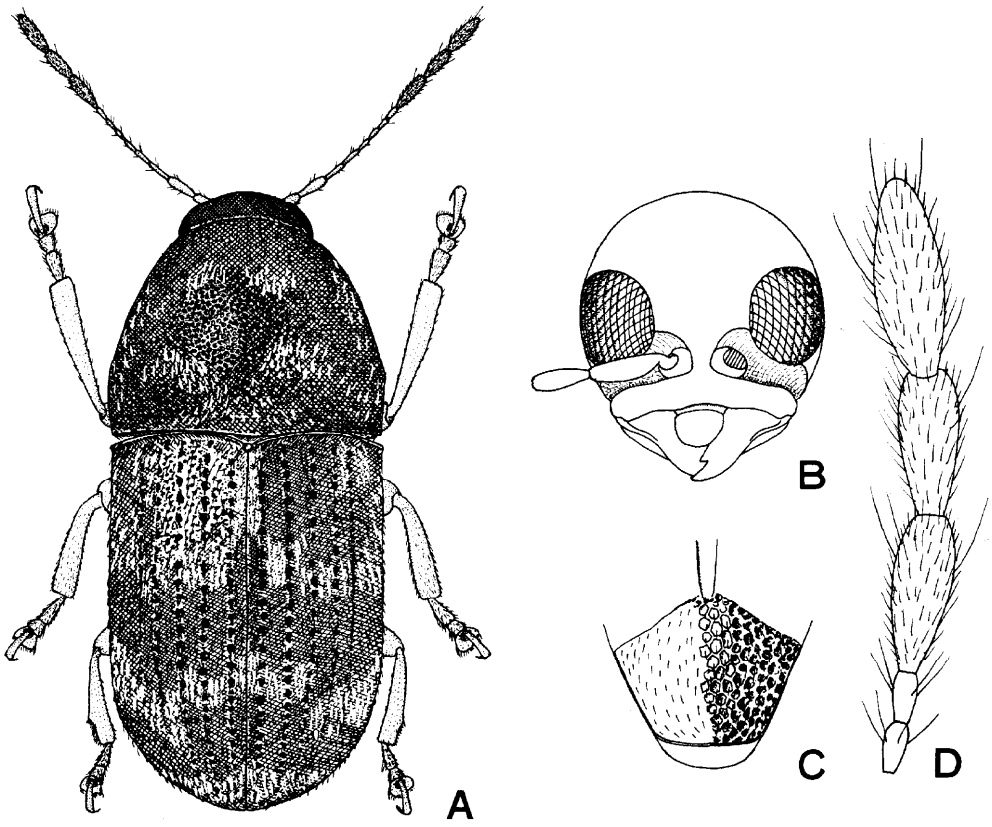


Fig. 2. *Stenorhis hirashimai*, male. A : Type B: Head, C: Pygidium. **D:** Antenna1 club.

Venter weakly depressed longitudinally at middle.

♀. Pygidium with glossy unpunctured area along apical margin. Venter not depressed.

Length : 2. O-Z. 2 mm, breadth : 0.9-l. 1 mm.

Type ♂ (Type No. 2107, Kyushu Univ.), Yuwan, Amami-Oshima, 29-31. VII. 1963, Y. Hirashima leg.

Paratypes: 1♀, same locality as type, 31. VII. 1963, J. L. Gressitt leg. ; 1♂, Mt. Yonaha, Okinawa-Honto, 11. VII. 1977. H. Makihara leg.

Distribution : Japan (Amami-Oshima and Okinawa Isls.).

The present new species is easily recognized by the length of the lateral carina, which extends straightly almost to the anterior margin, and the scaly markings on the pronotum and the elytra.

Deropygus Sharp

Deropygus Sharp, Trans. Ent. Soc. London, 1891: 326, 1891 (Type : *Deropygus histrio* Sharp, by new designation).

Deropygus histrio Sharp (Fig. 3, A)

Deropygus histrio Sharp, Trans. Ent. Soc. London, 1891: 326, 1891 (Ichiuchi).

Specimens *examined:* 1♀, Mt. Tebako, Kôchi Pref., 7, VIII. 1957, K. Morimoto leg. ;1♂, Ohoshiyama, Tsushima, 6. V. 1978, H. Makihara leg.

Distribution : Japan (Shikoku, Kyushu, Tsushima).

Deropygus jocosus Sharp (Fig. 3, B, H)

Deropygus jocosus Sharp, Trans. Ent. Soc. London, 1891: 327, 1891 (Fukushima).

Specimens *examined: 2* ♂1♀, Monobe-mura, Kôchi pref., 26-28. VIII. 1958, K. Morimoto leg.

Distribution : Japan (Honshu, Shikoku).

Deropygus didymus Jordan (Fig. 3, I, J)

Deropygus didymus Jordan, Novit. Zool.XXXI: 251, **1924** (Perak [type], Sumatra, Java, Philippines, Taiwan) ;Wolfrum, Ent. Blätt. 30: 12-13, 1934 (Key, ♂♀).

Specimens examined: 4♂*2*♀, Shirahama, Iriomote Isl., 3-7. X. 1963, S. Uéno and K. Morimoto leg.; 1♂1♀, Ushikumori, Iriomote Isl., 4 & 7. X. 1963, K. Morimoto leg.; 1♀, Mt. Banna, Ishigaki Isl., 17-28. VI. 1963, G. A. Samuelson leg.

Distribution : Perak, Sumatra, Java, Philippines, Taiwan, Japan (Iriomote and Ishigaki Isls.)–new record.

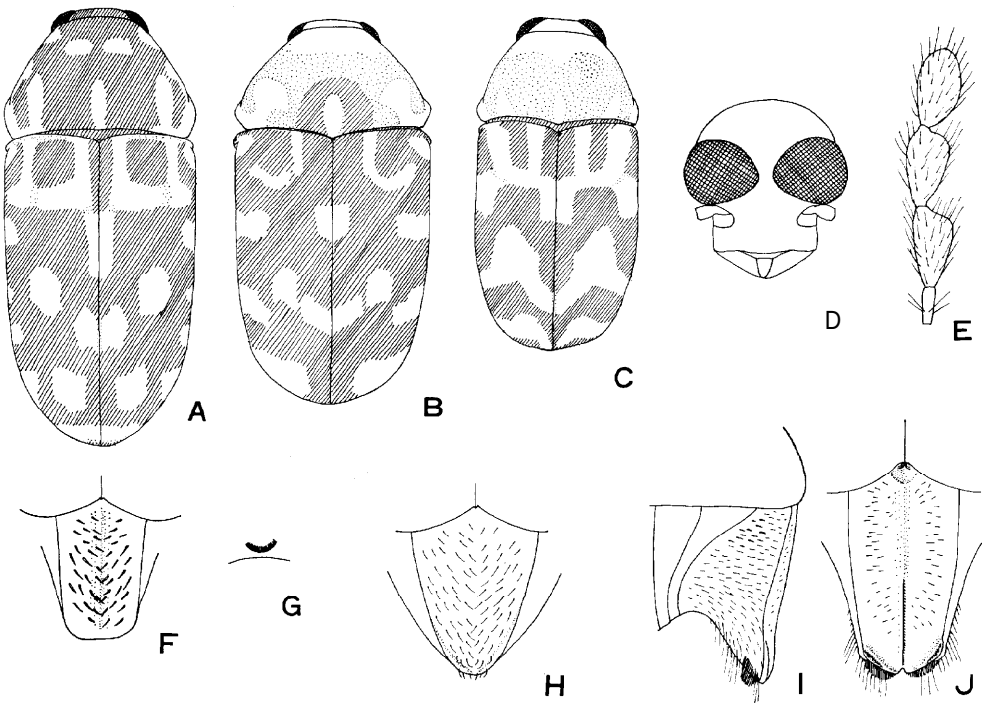


Fig. 3. *Deropygus* spp. A :*histrio*. B: *jocosus*. *C-G: flavicollis* (F : Male pygidium. G: Brown comb of 5th ventrite in male). H: Pygidium of jocosus. I-J: Pygidium of *didymus*.

Deropygus sp.

Specimen *examined:* 1♂, Okimura, Haha-jima, Ogasawara Isls., 4. VI. 1975, T. Seino leg.

This is apparently a new species, but the only specimen has lost its antennae.

***Deropygus flavicollis* sp. nov.** (Fig. 3, C-G)

♂. Derm yellowish brown, elytra castaneous brown, carina on pronotum and eyes black, ventrite l-4 dark brown; pubescence brownish and whitish, the latter forming patches as fig. 3C, whitish scales provided on head, rostrum, prosternum, pygidium, lateral areas of meso- and metathorax and abdomen.

Head finely shagreened, interocular area one-fourth as broad as interscrobal area; rostrum short, weakly widening apically. Antennae with the 1st and 2nd segments elliptic globular, equal in length, 3rd to 8th segments slender, subequal in length, 9th to 11th forming flat club, 9th and 10th segments asymmetric.

Pronotum broader than Iong (3 :2), slightly bisinuate at base, broadest at one-fourth from base; disc closely with fine and ill-defined punctures, carina flexed forwads in a marked angle of 120°, lateral carina extending anteriorly just before the middle of side margin. Scutellum punctiform, minute.

Elytra parallel-sided as far as apical third and roundly narrowing apically; striae with distinct punctures, the punctures becoming smaller on declivity; intervals slightly broader than striae, weakly convex, with fine granules.

Legs with femora unarmed in both sexes; hind tibiae with ascended tarsal grooves.

Pygidium parallel-sided, oblong, 7/4 times as long as wide, truncate at apex, weakly convex longitudinally at middle, not costate.

Underside of meso- and metathorax similarly punctate as on pronotum. Venter almost impunctate at middle, terminal segment with an arc of brown comb near posterior margin, the comb consists of short setae.

Length : 2.0-2.2 mm, breadth : *0.95-l. 0* mm.

Type♂ (Type No. 2108, Kyushu Univ.), Mt. Omoto-dake, Ishigaki Isl., 14. X. 1963, K. Morimoto leg.

Paratype : 1♂, Mt. Yuwandake, Amami-Oshima, 30. VII. 1963, L. Gressitt leg.

Distribution : Japan (Amami-Oshima and Ishigaki Isls.).

This new species is rather close to *arcus* Jordan, *glacilis* Jordan and *truncatus* Jordan in having similar scaly markings, but easily separable from them by the parallel-sided and the apically truncate pygidium and an arc of short brown setae on the fifth ventrite in the male.

Araecerus Schoenherr

Araecerus Schoenherr, Isis von Oken, heft 10: 1135, 1823 (Type: *Anthribus coffeae* Fabricius, by original designation).

Araeocerus Schoenherr, Gen. Sp. Curc. 5(1) : 273, 1839.

Araecerus fasciculatus Degeer (Fig. 4, A, E; Fig. 5, A ; Photo. C, D)

Curculio ***fasciculatus*** Degeer, Ins. V : 276, 1775 (India).
Anthribus coffeae Fabricius, Syst. El. II: 411, 1801 (India).
Amblycerus japonicus Thunberg, Nova Acta Ups. VII: 122, 1815 (Japonia).

Specimens examined: **420** specimens from Honshu, Shikoku, Kyushu, Ryukyus, Iki and Tsushima Isls., Taiwan and Corea.

Distribution : Cosmopolitan.

Note: This species was characterized by Jordan (1946) as "Male fore tibiae without prominent tubercles on underside", but the large individuals have a row of small granules on the' underside of the tibiae in the male. These granules are indistinct in the medium-sized and smaller individuals. The aedeagus of this species is characteristic in having a pair of triangular sclerites in the inner sac of the penis. Some specimens from the Ryukyus have dark sutural intervals on the elytra like A. *suturalis* Boheman.

Araecerus tarsalis Sharp (Fig. 4, B, F; Fig. 5, B)

Araecerus *tarsalis* Sharp, Trans. Ent. Soc. London, 1891: 323. 1891 (Kobe, Kiga, Miyanoshita, Nikko, Kashiwagi, Chiuzenji, Awomori, Fuji).

Specimens examined: 26 specimens from Nagano, Shizuoka, Kagawa, Kôchi, Fukuoka, Kumamoto and Kagoshima Pref.

Distribution : Japan (Honshu, Shikoku, Kyushu).

Note: Aedeagus of this species has a slender dorsal plate of penis and the sclerites in inner sac are indistinct.

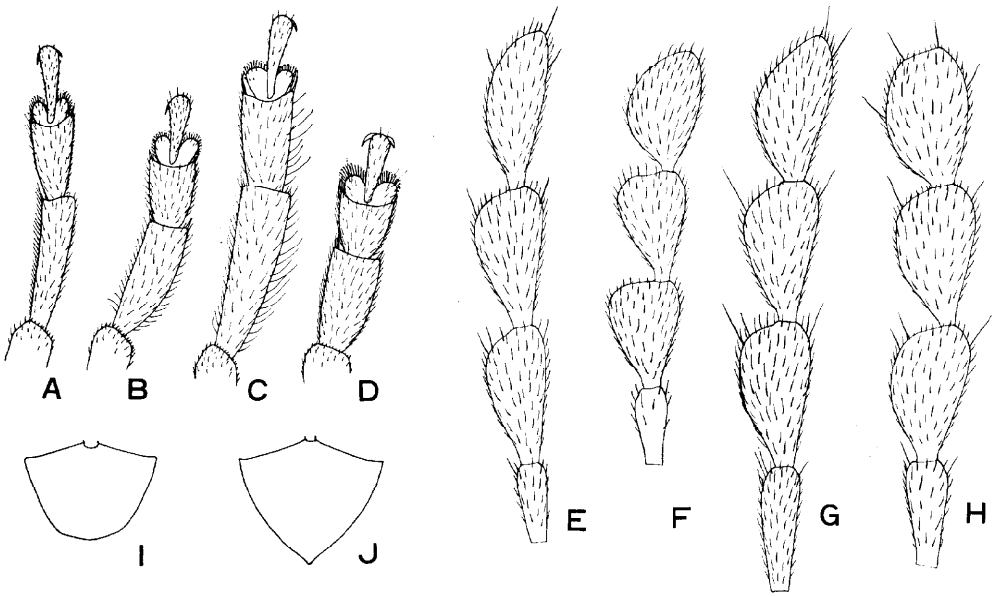


Fig. 4. ***Araecerus*** spp. A-D: Male front tarsus (A : ***fasciculatus.*** B: ***tarsalis. C: varians.*** D : *ishigakiensis*). E-H: Antenna1 club (E: ***fasciculatus.*** F : *tarsalis*. ***G: varians.*** H: *ishigakiensis*). I-J: Pygidium of ***ishigakiensis*** (I : male. J: female),

Araecerus varians Jordan (Fig. 4, C, G ; Fig. 5, C; Photo. E-G)

Araecerus varians Jordan, Proc. Hawaii. Ent. Soc. XII: 520, 1946 (Hawaii: Maui (type), Hawaii, Molokai, Lanai, Oahu, Kauai).

Specimens examined: 150 specimens from Ogasawara Islands.

Distribution : Hawaii, Japan (Ogasawara Isls.: Chichi-jima, Haha-jima) .- new record.

Note: This variable species was identified from the description. The aedeagus is characteristic in having the blunt apex of the penis. two pairs of small sclerites in inner sac and the subtriagular apex of the cap-piece of the tegmen.

***Araecerus ishigukiensis* sp. nov.** (Fig. 4, D, H, I, J; Fig. 5, D; Photo. H, I)

♂ : Derm reddish brown to dark reddish brown, basal margin of elytra and irregular patches on pronotum a little darker; pubescence dark brown, brown, yellowish brown to greyish, forming yellowish or greyish spots in contrast with darker scaly vesture ; head with yellowish patches on sides, pronotum variegated with greyish small patches, scutellum greyish, elytra with a yellowish to greyish postscutellar stripe and about ten greyish spots on alternate intervals in many specimens, in some cases elytra clothed with yellowish brown pubescence except for anterior and posterior margins, pygidium with a pair of yellowish to greyish ill-defined scaly spots.

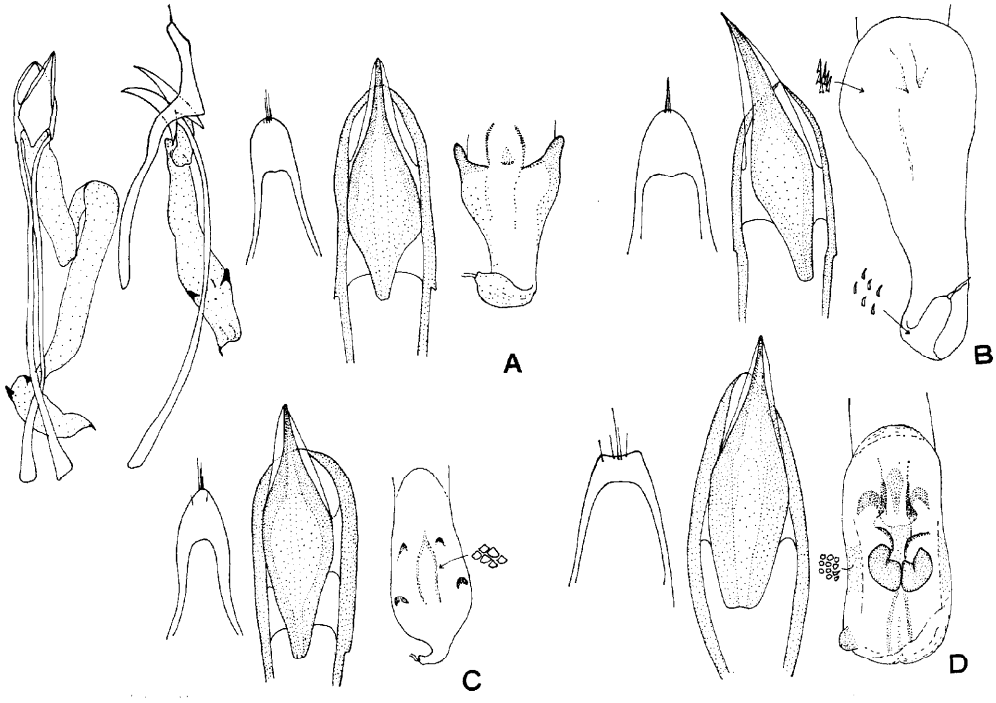


Fig. 5. Aedeagus of *Araecerus* spp. A: *fasciculatus*. B: *tarsalis*. *C: varians*. D : *ishigakiensis*.

Head densely punctate, with a glossy median carina; rostrum similarly punctate as on head, weakly arched anteriorly and finely notched at middle; eyes weakly notched at the base of dorsal carina above scrobe. Antennae with proportions in length 7.5 : 5 : 9 : 7 : 6 : 6 : 5 : 5.5 : 7 : 8, width of club 4.7.

Pronotum a little shorter than in *fasciculatus,* broader than long (1.6 : 1), disc densely punctate, dorsal carina weakly bisinuate as in *fasciculatus,* angle of carina very little larger than 90°, lateral carina straight and shortly curved at apex.

Elytra a little longer than wide (6 : 5), broadest at basal fourth, subbasal swelling less elevated than in *fasciculatus,* the upper surface being more evenly convex in lateral aspect; alternate intervals not convex, intervals with fine granules.

Pygidium as long as wide, densely punctate. Antecoxal area of prosternum visibly bare, finely pubescent at middle, flat, punctation very fine and visible under high magnification. Fore legs with tibiae robust, widening apically, with suberect setae on underside and depressed setae on upperside, with fine granules at base of setae. Fore tarsi broad, 1st tarsal segment 5/3 times as long as wide, 2nd segment nearly as long as wide. Middle coxae each with a small black granule. Venter with several punctures at central area of 1st ventrite, the other area almost unpunctured but finely granulate, except a row of large punctures along anterior margin of 1st ventrite and a row of small punctures along anterior margin of 2nd ventrite.

♀. Pygidium triangular at apex; middle coxae without tubercles.

Length : 3.4-4.1 mm, breadth : 1.8-2.3 mm.

Type ♂ (Type No. 2109, Kyushu Univ.), Yoshihara, Ishigaki Isl., 15.X. 1963, K. Morimoto leg.

Paratypes : 9 ♂ 10 ♀, same data as type ; 18 ♂ 20 ♀, same locality as type, 16. X. 1963, S. Miyamoto and S. Uéno leg.; 6 ♂ 7 ♀, Banna, Ishigaki Isl., 7. X. 1963, K. Morimoto leg. ; 1 ♂, Yona, Okinawa, 19. X. 1963, S. Miyamoto leg.

Distribution : Japan (Okinawa and Ishigaki Isls.).

The genus *Araecerus* is predominantly Inodo-Australian and contains 52 species at present. They are very close to each other and more or less intra-specifically variable in the coloration, but may be separable by the following key.

KEY TO SPECIES OF *Araecerus* BASED ON MALES KNOWN TO THE AUTHOR

1 : Fore tibiae simple or at most with a row of minute granules on the underside 2

1' : Fore tibiae serrate or with tooth-like granules on underside 3

2 : Hind tibiae with dark spots or rings ..... **Araecerus fasciculatus** Degeer
Araecerus fragilis Walker

2' : Hind tibiae immaculate ..... **Araecerus suavis** Jordan
Araecerus pumilus Jordan
Araecerus levipennis Jordan
Araecerus suturalis Boheman
Araecerus ishigakiensis Morimoto

3 : Fore tibiae mucronate 4

3' : Fore tibiae not mucronate 5

4 : Hind tibiae with dark spots or rings ..... **Araecerus arafurus** Jordan
Araecerus rotundatus Jordan
Araecerus gibbicollis Jordan
Araecerus omphalus Jordan
Araecerus vieillardi Montrouzier

4' : Hind tibiae immaculate ..... **Araecerus corporaali** Jordan

5 : Hind tibiae with dark spots or rings ..... **Araecerus varians** Jordan
Araecerus acutus Jordan
Araecerus tarsalis Sharp

5' : Hind tibiae immaculate ..... **Araecerus constans** Perkins
Araecerus simulatus Gyllenhal
Araecerus bradytus Jordan

The present new species is apparently a member of the group ***suavis,*** *pumilus, levipennis* and ***suturalis.*** ***A.*** *pumilus* is much smaller (2 mm in length) ; *levipennis* is slenderer, *suturalis* has the sharp hind angles of the pronotum and the longer pygidium, which is a little longer than wide. This is closest to ***suavis*** in many characters, but may be separable from it by the presence of small punctures along the anterior margin of the 2nd ventrite.

Tribe CHORAGINI

Choragini Valentine, Trans. Amer. Ent. Soc. LXXXVI: 48, 1960.

Japanese species of the genus Choragus were described by Sharp (1891), and revised by Johraku (1953) together with the descriptions of new species and a close genus *Citacalus*. Jordan (1924) described *Melanopsacus* separating from ***Dysnos*** Pascoe by the shape of the antennae and the basal angles of the pronotum, and from ***Choragus*** by the strongly punctate-striate elytra and the densely punctate-reticulate pronotum and head. These characters are, however, apparently insufficient to separate these genera.

Choragus Kirby

Choragus Kirby, Trans. Linn. Soc. London, 12: 447, 1818 (Type : ***Choragus sheppardi*** Kirby, by mono typy),

The revision of ***Choragus*** will not be presented here for the genus needs a careful study on the sufficient materials, but a key to the species is given here compiled from my notes on the types described by Sharp (1891).

KEY TO JAPANESE SPECIES OF ***Choragus*** DESCRIBED BY SHARP

1 : Dorsal carina of pronotum reaching hind angles and carinula absent, lateral carina obscure 2

1' : Dorsal carina of pronotum angulate a little before hind angles of pronotum, carinula and lateral carina present 3

2 : Third intervals of elytra connate with the first across the 2nd before the middle. Length: 2.8–3 mm ..... **Choragus cryptocephalus** Sharp

2' : Third intervals of elytra entire. Length: 1.8 mm ..... **Choragus cissoides** Sharp

3 : Dorsal prothoracic carina weakly but distinctly angulate in the middle ; elytra slenderer, the length more than 3/2 the width; reddish brown. Length: 1.5–2.4 mm ..... **Choragus mundulus** Sharp

3' : Dorsal prothoracic carina not angulate in the middle 4

4 : Hind angles of pronotum sharply prolonged beneath humeri; lateral prothoracic carina short. Length: 2.5–3.6 mm ..... **Choragus compactus** Sharp

4' : Hind angles of pronotum shortly prolonged beneath humeri; body length up to 2.7 mm 5

5 : Lateral prothoracic carina very short; pronotum and head reddish, elytra brownish. Length : 1.8–1.9 mm ..... **Choragus cryphaloides** Sharp

5' : Lateral prothoracic carina 1/3 the side length of pronotum; dark brown to brown ; elytra sparsely covered with pubescence. Length : 1.7–2.2 mm ..... **Choragus anobioides** Sharp

Choragus anobioides Sharp (Fig. 6, D)

Chragus anobioides Sahrp, Trans. Ent. Soc. London, 1891: 325, 1891 (Oyama).

Distribution : Japan (Hokkaido, Honshu).

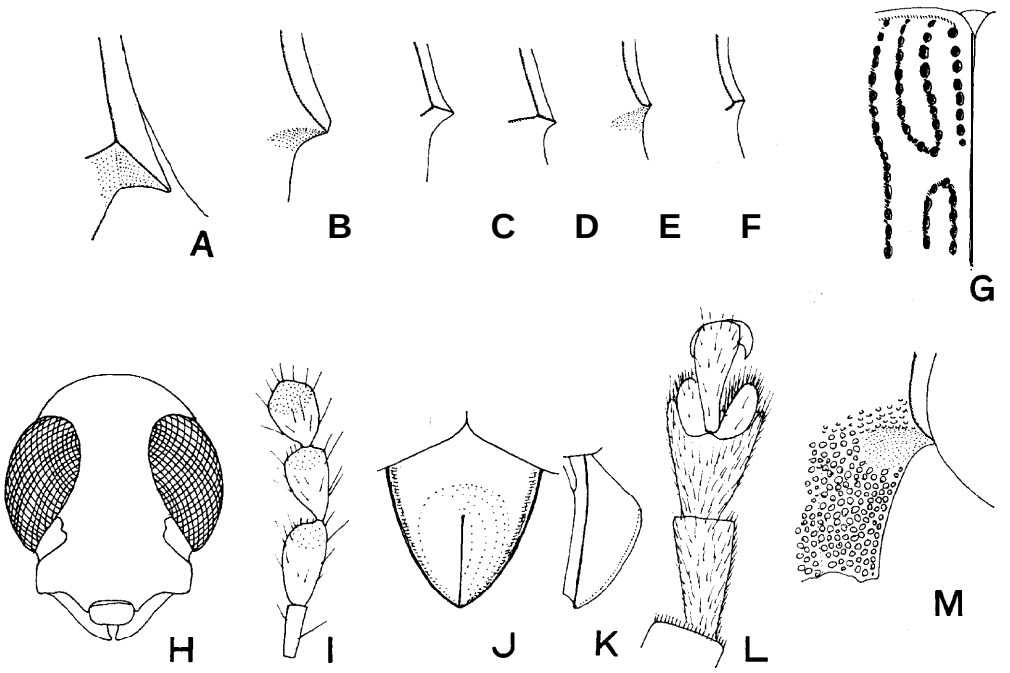


Fig. 6. A-G: ***Choragus*** spp. (A-F : Left hind angle of pronotum. A: *compactus*. B: *cryptocephalus*. *C: mundulus*. D: *anobioides*. E : ***cissoides.*** F : *cryphaloides*). ***G:*** Elytron of *cryptocephalus* showing the basal part of lst-3rd intervals. H-M: *Citacalus pygidialis*, male (H: Head, I: Antenna1 club. J-K: Pygidium, L: Fore tarsus. M: Left hind angle of pronotum).

Choragus cissoides Sharp (Fig. 6, E)

Choragus cissoides Sharp, l.c.: 3‘25 (Nara, Nagasaki).

Distribution : Japan (Honshu, Kyushu) .

Choragus compactus Sharp **(Fig. 6, A)**

Choragus *compactus* sharp, 1.c.: 323 (Nikko).

Distribution : Japan (Honshu).

Choragus cryphaloides Sharp (Fig. 6, F)

Choragus *cryphaloides* Sharp, 1.c.: 325 (Nikko, Kurigahara).

Distribution : Japan (Hokkaido, Honshu).

Choragus cryptocephalus Sharp (Fig. 6, B, G)

Choragus *cryptocephalus* Sharp, 1.c.: 324 (Nikko).

Distribution : Japan (Hokkaido, Honshu).

Choragus malus Johraku

Choragus *malus* Johraku, Chūhō, 9: 9, 12, 1953 (Nidoage).

Distribution: Japan (Honshu) .

Choragus mundulus Sharp (Fig. 6, C)

Choragus *mundulus* Sharp, Trans. Ent. Soc. London, 1891: 324, 891 (Kiso, Kurigahara).

Distribution : Japan (Honshu).

Choragus velutinus Johraku

Choragus *velutinus* Johraku, Chūhō, 9: 7, 11, 1953 (Meguro, Mt. Takao).

Distribution : Japan (Honshu).

Citacalus Johraku

Ciatcalus Johraku, Chūhō, 9: 10, 1953 (misprint of ***Citacalus)*** .
Citacalus Johraku, 1.c.: 10, 13, 16, 17.

Eyes oblong-oval, the upper edges closer to each other than the lower; interscrobal area of head broader than interocular area. Antennae with the 1st and 2nd segments robust, club much broader than the funicle, ultimate segment suboval. Dorsal carina of pronotum reaching hind angles, lateral carina and carinula absent, basal angles of pronotum shortly projected below humeri. Elytra punctate-striate, intervals much broader than striae. Legs with stout femora and slender tibiae, the latter somewhat expanded distally. First tarsal segment a little longer than 2nd, which is longer than wide. Pygidium strongly convex longitudinally, sharply carinate on the apical half in male; in female, pygidium triangularly projecting laterally near the apex.

Citacalus pygidialis Johraku (Fig. 6, H-M)

Citacalus *pygidialis* Johraku, Chūhō, (9) : 10, 13, 1953 (Kita-Karuizawa and near Nojiri lake).

Specimens examined: 1♂1♀, Kitakaruizawa, Gumma Pref., 23. VI. 1952, coll. and identified by Johraku.

Distribution : Japan (Honshu).

Melanopsacus Jordan

Melanopsacus Jordan, Ann. Mag. Nat. Hist. (9) XIII: 608, 1924 (Type : ***Melanopsacus*** *fortis* Jordan, by original designation).

This is predominantly an Indo-Australian genus which is also distributed on the Polynesian islands. Two new species described here are not exactly agreed with *Melanopsacus* in the shape of the basal angles of the pronotum, but the general appearance, especially the shape of the pronotum and the strongly punctate elytra, is characteristic of this genus. According to Jordan (1924), some species of the genus have the rectangular basal angles of the carina and the carinulae on the pronotum.

Melanopsacus makiharai **sp. nov.** (Fig. 7)

♂. Derm black, antennae except clubs reddish brown; pubescence blackish, not forming patterns.

Head finely, densely, subconfluently and reticulately punctate, pubescence fine and inconspicuous ; eyes somewhat flattened on inner side, interscrobal area slightly wider than interocular area; rostrum continuously punctate with head, pubescence a little longer. Antennae with 1st segment slightly bent backwards and as long as 2nd, 3rd segment as long as 4th and a little longer than 5th, 7th segment about half as long as 4th, club rather asymmetrical, 9th and 10th segments each with characteristic short stalk connecting next segment.

Pronotum 2/3 times as long as wide, broadest at the base, the sides somewhat angulately rounded just behind the middle and rapidly narrowing anteriorly, disc densely and reticulately punctate giving a shagreened appearace, basal carina straight and rectangularly bent anteriorly at side, lateral carina short, hind angles shortly produced below humeri, carinula distinct. Scutellum minute, transverse.

Elytra 4/3 times as long as wide, striae with very large punctures, intervals convex, pubescence prostrate.

Pygidium slightly wider than long, reticulaterly punctate, with fine median impunctate longitudinal carina.

Legs with 1st fore tarsal segment as long as two remainings taken together. Prosternum densely and reticulately punctate, lateral area below lateral carina evenly punctate ; mesosternal process subvertical ; metasternum separately provided with small punctures ; metepisternum irregularly with two rows of punctures ; venter similarly punctate as metasternum, longitudinally flattened at middle, last segment somewhat strongly depressed.

♀. Head with the interocular area as broad as interscrobal area ; rostrum transverse, outer surface of mandibles so sharply angulate near the base that the basal distance of mandibles visibly much narrower than rostrum. Venter not depressed.

Length: 2.6-2. 8mm, breadth: 1.2-l. 4mm.

Type♂ (Type No. 2110, Kyushu Univ.), Nishinakama, Amami-Oshima, 26. V. 1978, H. Makihara leg.

Paratypes: 2♀, same data as type.
Distribution: Japan (Amami-Oshima Isl.).

This new species is easily recognized by the very large punctures on the elytra.

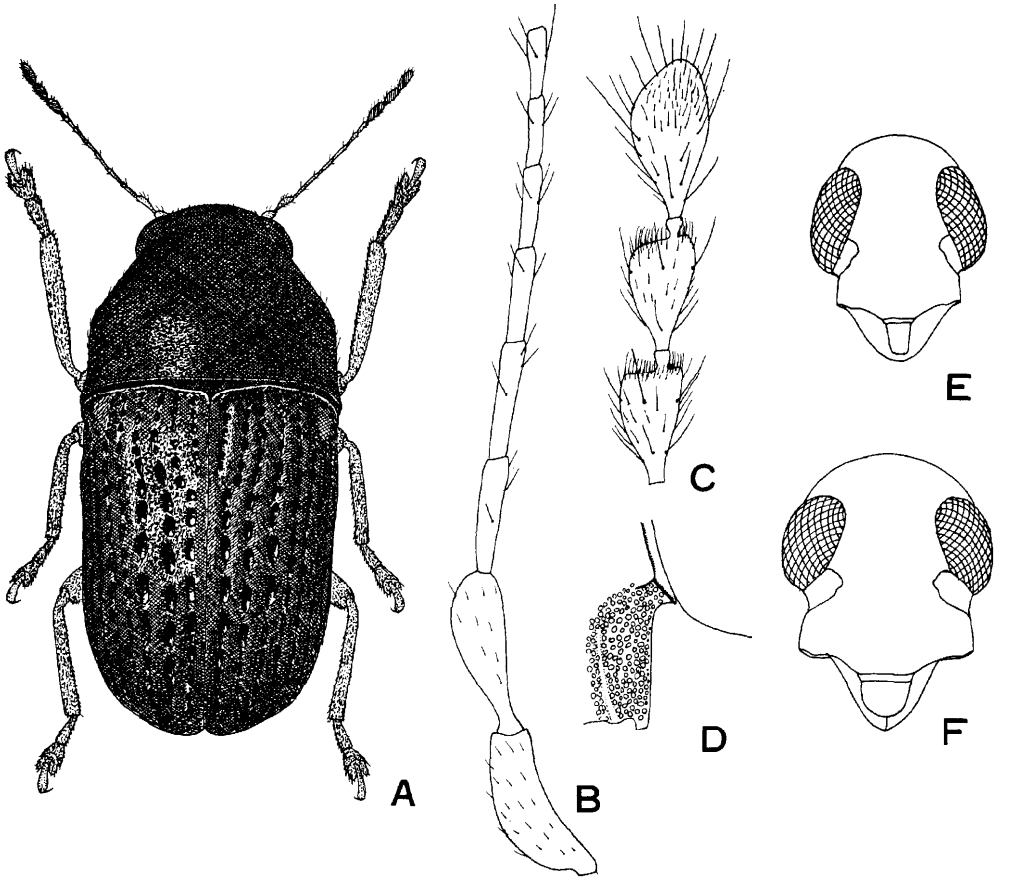


Fig. 7. *Melanopsacus* ***makiharai.*** A: Type. B, C: Antenna. D: Left hind angle of pronotum. E: Male head, F: Female head.

Melanopsacus kinke sp. **nov.** (Fig. 8)

♂♀. Derm black, appendages diluted with red; pubescence silvery or golden under certain light.

Head densely and reticulately punctate, interocular area much narrower than interscrobal area, eyes somewhat concave on inner side; rostrum continuously punctate with head. Antennae with 2nd segment 5/4 times as long as 3rd, 3rd−5th segments equal in length and a little longer than 6th, 7th and 8th segments equal in length and 3/5 the length of 3rd, club similar to that of *M. makiharai,* but a little slenderer.

Pronotum 2/3 times as long as wide, weakly sinuate before the base, basal carina slightly bisinuate, angles of carina nearly 90°, lateral carina 1/3 the side length of pronotum, hind angles shortly produced below humeri, carinula distinct, disc densely and reticulately punctate, sparsely pubescent, the pubescence a little denser at side. Scutellum transverse, densely pubescent.

Elytra longer than wide (8 :6.5), striae with large punctures, interstices of punctures much shorter than the punctures and lower than intervals, silvery pubescence prostrate, directing laterally from margin of intervals and covering striae, intervals with posteriorly directing prostrate fine brown pubescence.

Pygidium subtriangular, as long as wide, densely punctate.

Legs with 1st fore tarsal segment as long as two remainings taken together. Prosternum densely punctate, with a glossy impunctate area just below the lateral carina. Metasternum separately provided with small punctures; metepisternum with a row of fine punctures. Venter with 1st ventrite with a row of large punctures along basal margin and with several punctures behind them except smooth lateral area, 2nd–5th ventrites similarly punctate as metasternum, but a little closer toward apex.

Length: 2.4–2.7 mm, breadth: 1.2-l. 4mm.

Type ♀ (Type No. 2111, Kyushu Univ.), Shirahama, Iriomote Isl., 4. X. 1963, K. Morimoto leg.

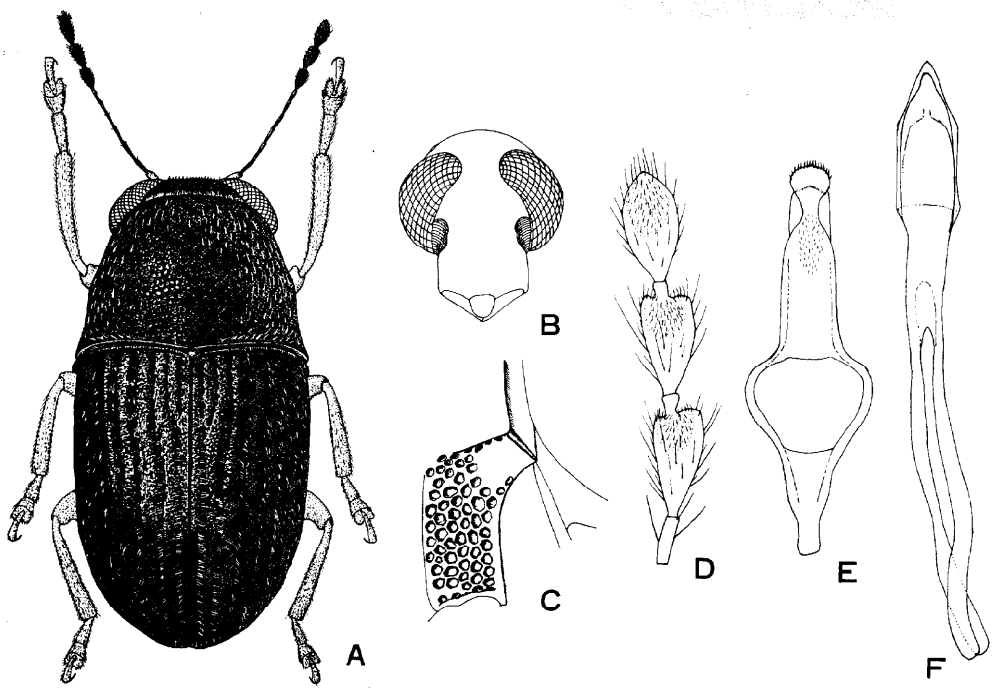


Fig. 8. *Melanopsacus kinke*, male. A: Type. B: Head. C: Left hind angle of pronotum. D: Antenna1 club. E, F: Aedeagus.

Paratypes: 2♀, same data as type; 1♂1♀, same locality as type, 3. X. 1963 & 26. VII. 1963, Y. Miyatake leg., 1♀, Ushikumori, Iriomoto, 9. III. 1964, Y. Miyatake leg.; 1♀, Kenting, Ping Tung Hsien, Taiwan, 3. VI. 1965, S. Uéno leg.; 1♀, Penpuchi, Nantou Hsien, Taiwan, 9. VII. 1966, H. Sasaji leg.

Distribution : Japan (Iriomote Isl.), Taiwan.

The present new species is similar to *M. atratus* Jordan, *calculus* Jordan and *funebris* Jordan, but separable from *atratus* and *calculus* by the weakly bisinuate basal carina of the pronotum, and from *funebris* by the punctation of the ventrites.

Tribe ANTHRIBINI

Brachytarsides Lacordaire, Gen. Col. VII: 586, 1866.
Anthribini Valentine, Trans. Amer. Ent. Soc., LXXXVI: 49, 1960.

Anthribus Forster

Anthribus Forster, Nov. Sp. Ins. : 9, 1771 (Type : ***Anthribus fasciatus*** Forster, decided by the International Commission of Zoological Nomenclature).
Brachytarsus Schoenherr, Curc. Disp. Meth.: 38, 1826 (Type : ***Anthribus*** *varius* F., by original designation).

Anthribus niveovariegatus Roelofs (Photo. K)

Brachytarsus niveovariegatus Roelofs, Ann. Soc. Ent. Belg. XXII, Compt. Rend.: 1v, 1879 (Japon) ; Wolfrum, Col. Cat. Suppl. pars 102, Anthribidae: 44, 1953 (correct spelling).
Brachytarsus nigrovariegatus Roelofs, Ann. Soc. Ent. Belg. XXIV: 29, 1880 (misprint of *niveovariegatus*) ; Wolfrum, Col. Cat. pars 102, Anthribidae : 99, 1929.

Specimens examined: 1 *ex.*, Meakandake, Hokkaido, 5. VII. 1958, S. Miyamoto leg.; 1 ex., Ashoro, Hokkaido, 24-31. VII. 1959, K. Morimoto leg.; 7 exs., Tôma, Hokkaido, VII. 1970, K. Kamijo leg. reared from *Physokermes jezoensis; 1 ex.*, Masutomi, Yamanashi Pref., 6. VI. 1962, T. Saigusa leg. ; 1 ex., Mt. Takao, Tokyo, 29. IV. 1960, S. Tsuyuki leg. ; 1 ex., Mt. Wakasugi, Fukuoka Pref., 26. VI. 1953, I. Hiura leg. ; 1 ex., Fukuoka City, V. 1954, H. Fukuda leg. reared from *Ericerus pela*; *2 exs.*, Tatsudayama, Kumamoto City, 8. IV. 1960, T. Kawarabata leg. ; 2 exs., Mt. Kirishima, Kagoshima City, 17. VI. 1958, H. Maebara leg. ; 1 ex., Iso, Kagoshima Pref ., 29. III. 1959, H. Maebara leg.

Distribution : Japan (Hokkaido, Honshu, Shikoku, Kyushu).

Anthribus kuwanai Yuasa (Photo. J)

Brachytarsus kuwanai Yuasa, Oyo-Dobutsugaku Zasshi, III: 21, 1931 (Tokyo, from *Kermes vastus* and ***Kermes*** *nawae*).
Anthribus *vandykei* Jordan, Novit. Zool. XXXVIII: 383, 1933 (China: Nanking, from *Kermes* sp. on oak)-syn. **nov.**

Specimens examined: 1 ex., Ina, Nagano Pref. 1. VI. 1962, K. Oshima leg.; 3 exs., Fukuoka City, reared from a *Kermes* sp.

Distribution : Japan (Honshu, Shikoku, Kyushu), China.

I have compared the Japanese specimens with the paratype of A. *vandykei*

Jordan at the British Museum (Natural History).

Paramesus Fåhraeus

Paramesus Fåhraeus, Oefv. Vet. Ak. Förh.: 443, 1871 (Type: ***Paramesus*** *lituratus* Fåhraeus, by monotypy).

Opanthribus Schilsky, Käf. Eur. XLIV, nr. 47, 1907 (Type: ***Brachytarsus tessellatus*** Boheman, by monotypy).

Paramesus tessellatus Boheman

Brachytarsus *tessellatus* Boheman, Nouv. Mem. Mosc. : 119, 1829 (Styria).

Brachytarsus *fallax* Perris, L'Abeille, XIII: 13, 1875; Sharp, Trans. Ent. Soc. London, 1891: 322, 1891 (Hitoyoshi, Kashiwagi, Nikko, Kurigahara, Junsai).

Specimens *examined:* Common species and many specimens from Hokkaido, Aomori, Nagano, Kôchi, Fukuoka, Ôita, Kumamoto and Kagoshima Pref., and **Tsushima .**

Distribution: Europe to Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima).

Tribe EUPARIINI

Euparіini Valentine, Trans. Amer. Ent. Soc., LXXXVI: 49, 1960.

Euparius Schoenherr

Euparius Schoenherr, Isis von Oken, Heft 10: 1135, (Type: *Anthribus lunatus* Fabricius, by monotypy).

Caccorhinus Sharp, Trans. Ent. Soc. London, 1891: 321, 1891 (Type: ***Caccorhinus*** *oculatus* Sharp, by monotypy).

Euparius modicus yaeyamanus **subsp. nov.** (Fig. 9, A)

♀. Differing from ***E.*** *modicus modicus* Jordan, 1933, from Tonkin (Hoa Binh) ***by*** the entirely black tarsi and lack of lateral antemedian black spots on elytra.

Length: 5.3–6.0 mm.

Type ♀ (Type No. 2112, Kyushu Univ.), Yonehara, Ishigaki Isl., 28. V. 1975, H. Maki hara leg.

Paratypes: 2 ♀, same data as type ; **1** ♀, same locality as type, 27. V. 1976, T. Ogasawara leg. ; 2 ♀, Omiya, Iriomote Isl., 18. V. 1974, K. Unno leg.

Distribution : Japan (Iriomote and Ishigaki Isls.).

Euparius concolor **sp. nov.** (Fig. 10, D; Photo. M)

♀. Dark reddish brown to black, evenly with luteous grey pubescence, the pubescence sparser on median area of ventral surface. Antennae reddish brown except dark brown to blackish two basal segments and clubs.

Head with a fine median carina running from frons to shallow median

depression on rostrum, the latter with dorsal pubescent surface rapidly narrowing anteriorly from antenna1 insertions. Antennae with proportions in length 9 : 8 : 7 : 7 : 5.5 : 5 : 4.3 : 4.3 : 9.5 : 8 : 18; width of IX 7, X 9, XI 8.5.

Pronotum a little broader than long (13 :11), broadest at the base, basal margin bisinuate, angles of carina about 90°, lateral carina weakly concave seen from above and reaching basal third, disc evenly convex, smooth, minutely punctate at base of each pubescence.

Elytra parallel-sided, weakly depressed behind basal margin, subbasal swellings very weak; punctured striae almost concealed by pubescence, much narrower than intervals, interstices of punctures on the same level as intervals.

Pygidium slightly broader than long, broadly rounded at side and subtruncate at apex.

Prosternum with large punctures at side. Mesosternal process broader than long, simply rounded behind. Metasternum sparsely with large punctures at side and granulate at middle. Abdomen flattened and almost bare at middle.

♀. Abdomen not depressed at middle.

Length: 5.8-7. Omm, breadth: 2.2-3. Omm.

Type♂ (Type No. 2113, Kyushu Univ.), Yonahadake, Okinawa, 20. V. 1978, H. Makihara leg.

Paratypes: 1♀, same data as type ; 1♀, 1♀, 2♂ 3♀, Yona, Okinawa, 9. VIII

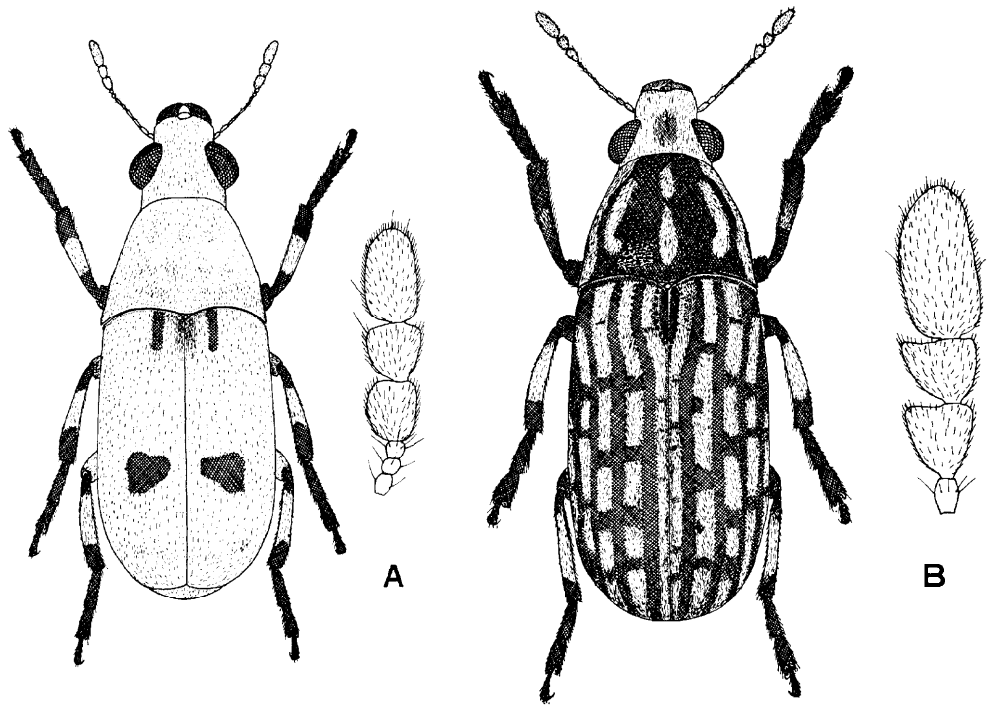


Fig. 9. A : *Euparius modicus* ***yaeyamanus.*** B : ***Euparius boninensis.***

1969, 12. VI. 1970 & 15-17. VII. 1970, H. Makihara leg.; 1♂, Yuwandake, Amami-Oshima, 16-17. VII. 1963, H. Inoue leg.; 1♂, Naze, Amami-Oshima, 27. V. 1978, H. Makihara leg.

Distribution : Japan (Amami Oshima and Okinawa Isls.).

Euparius boninensis sp. nov. (Fig. 9, B)

? Caccorhinus ogasawarensis, Matsumura, in Toyoshima, A general account of the Bonin Islands and their forests: 125, 1914.

? *Caccorhinus ogasawarensis*, Kano, Bull. Biogeogr. Soc. Japan, 1: 242, 1930.

? *Caccorhinus* sp., Monzen, Ann. Rep. Gakugei Fac., Iwate Univ. 2: 27, 1951.

Euparius sp., Hasuo, in Tsuyama and Asami, The nature in the Bonin Islands (Hirokawa Shoten): 168, 1970.

Euparius sp., Nakane, The nature of the Bonin and the Vocano Islands (Agency for Cultural Affairs) : 26, 1970.

A species of this genus has been recorded from the Ogasawara Isls. in several papers as above, but not yet described.

♂. Derm black, scaly marked area brownish, glossy ; ochreous pubescence forming well defined patches on each side of head beside eyes, median and two pairs of lateral stripes on pronotum, and several longitudinal stripes on alternate intervals of elytra. Antennae black with reddish terminal margin on ultimate segment. Legs black, fore tibiae with a few ochreous pubescence forming vague band at the middle, middle and hind tibiae with broad ochreous area at the middle, tarsi entirely black.

Head without median carina; rostrum with a shallow longitudinal depression at middle. Antennae with proportions in length 9: 8: 6: 6: 6: 6: 5: 5: 10 : 9: 20, width of IX 9, X 10, XI 10.

Pronotum a little broader than long (15 :12), broadest at base, basal margin hisinuate, angles of carina slightly less than 90°, lateral carina reaching the middle of side margin, disc evenly convex, minute punctures more or less transversely confluent.

Elytra slightly widened posteriorly from humeri to two-thirds from base, weakly depressed behind basal margin, subbasal swellings hardly discernible, even intervals sparsely with blackish pubescence, odd intervals closely covered with ochreous longer pubescence with several blackish breaks, punctured striae clearly visible from above, much narrower than intervals, interstices of punctures nearly on the same level as intervals.

Pygidium one-third broader than long, simply rounded behind, with sparse blackish pubescence together with ochreous several pubescence at side.

Underside with sparse dark brown pubescence, the pubescence a little paler and yellowish on the lateral area of metathorax and abdomen. Prosternum with large punctures at side. Mesosternal process similar to *E. concolor*. Metasternum with several large punctures, granules on median area sparse and small. Venter flattened at middle.

♀. Abdomen not depressed at middle.

Length : 6.0-7.4 mm, breadth : 2.8-3.3 mm.

Type♂ (Type No. 2114, Kyushu Univ.), Haha-jima, Ogasawara Isls., 2. IV. 1970, K. Kojima leg.

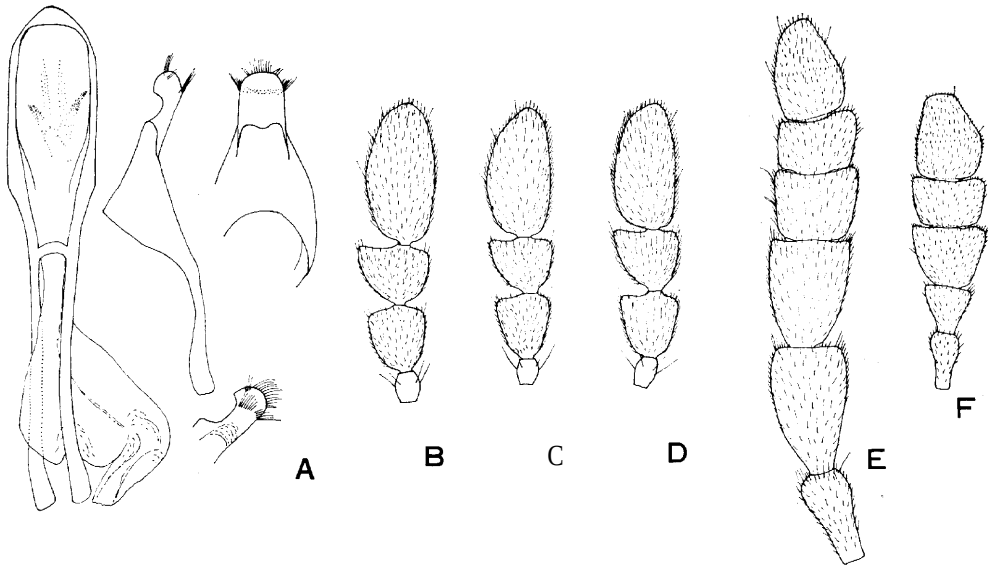


Fig. 10. A: Aedeagus of *Euparius oculatus oculatus*. B-F : Antenna1 club (B: *Euparius oculatus oculatus*. C : *E. oculatus furmosanus*. D : *E. concolor*. E-F : *Basitropis seinoi* (E : Male. F : Female).

Paratypes: 3♂3♀, Mt. Kuwanoki, Haha-jima, Ogasawara Isls., 13. VI. 1975, T. Seino leg. ; 1♀&1♂1♀, Hyogitaira, Haha-jima, Ogasawara Isls., 3. VI. 1973, H. Fujita leg. & 7. VI. 1975, T. Seino leg.

Distribution : Japan (Ogasawara Isls.: Haha-jima).

Euparius oculatus oculatus Sharp (Fig. 10, A, B; Photo. L)

Caccorhinus oculatus Sharp, Trans. Ent. Soc. London, 1891: 321, 1891 (Osaka, Junsai, Otsu).
Caccorhinus oculatus var. *niger* Nakane, Sci. Rep. Saikyo Univ. 2(A) : *39, 1955.*

Specimens *examined:* Many specimens from Yamanashi, Okayama, Kôchi, Fukuoka, Kumamoto and Nagasaki Pref.

Distribution : Japan (Hokkaido, Honshu, Shikoku, Kyushu) .

Euparius oculatus formosanus Jordan (Fig. 10, C)

Caccorhinus oculatus formosanus Jordan, Novit. Zool. XIX: 144, 1912 (Formosa: Fuhoshe)

Specimens examined : 1♂1♀, Nakanoshima, Tokara Isls., 11. VII. 1960, M. Sato leg.; **21** specimens from Nanshanchi, Taiwan, Shirôzu and Kurosawa **leg.**

Distribution : Taiwan, Japan (Nakanoshima Isl.), China (Fukien).

Euparius tamui Nakane

Euparius tamui Nakane, Fragm. Col. pars 8: 31, 1963 (Kammuri Isl. north of Kyoto).

Distribution : Japan (Kammuri Isl.).

KEY TO SPECIES OF THE GENUS *Euparius* FROM JAPAN

1 : Dorsal surface without any pubescent markings, unicoloured luteous grey. (Okinawa and Amami-Oshima) ..... Euparius **concolor** Morimoto

1′ : Dorsal surface with pubescent markings 2

2 : Elytra with a transverse broad band behind middle, a common quadrate patch behind scutellum, and humeral prominence blackish. (Kammuri Isl.) ..... **Euparius tamui** Nakane

2′ : Elytra without a transverse broad band behind middle 3

3 : Elytra with a pair of black spots behind middle. (Yaeyama Group: .....*..... Euparius **modicus** yaeyamanus Morimoto

3′ : Elytra with small black spots on odd intervals 4

4 : Elytra with even intervals visibly black, odd intervals with ochreous pubescent stripes with blackish breaks. (Ogasawara Isls.) ... Euparius boninensis Morimoto

4′ : Elytra with even intervals covered with ochreous to luteous grey pubescence, odd intervals a little closely pubescent and with several black spots in a linear manner 5

5 : Tarsi entirely black. (Japan) ..... **Euparius oculatus oculatus** Sharp

5′ : Middle and hind tarsi each with a broad band on first segment. (Taiwan, Japan (Nakanoshima), China) ..... Euparius **oculatus formosanus** Jordan

Tribe OZOTOMERINI

Ozotomerini Morimoto, Bull. Gov. Forest Exp. Sta. (246) : 37, 1972.

Ozotomerus Perroud

Ozotomerus Perroud, Ann. Soc. Linn. Lyon, (2) I: 406, 1853 (Type : *Ozotomerus maculosus* Perroud, by monotypy).

Dipieza Pascoe, Ann. Mag. Nat. Hist., (3) IV : 331, 1859 (Type : *Dipieza Waterhousei* Pascoe, by monotypy).

Oedecerus Montrouzier, Ann. Soc. Agr. Lyon, VII: 1857 (Type: *Oedecerus bipunctatus* Montrouzier, by monotypy).

Ozotomerus japonicus Sharp (Fig. 11, B; Photo. N)

Ozotomerus japonicus Sharp, Trans. Ent. Soc. London, 1891: 320, 1891 (Nishi).

Specimens examined: 40 specimens from Mt. Takao, Tokyo; Onnazawa, Ina, Nagano Pref. ; Mt. Katamuki, Ôita Pref. and Kumamoto City.

Distribution : Japan (Honshu, Shikoku, Kyushu).

***Ozotomerus amamianus* sp. nov.** (Fig. 11, A; Photo. 0)

♂. Derm black; *legs*, mandibles and anterior margin of pronotum dark reddish brown. Pubescence griseous, bearing numerous small indistinct fuscous black spots, pronotum with an indistinct median whitish pubescent line, elytra with a transverse fuscous black band before declivity, this band limited vaguely in front and sharply behind.

Head closely punctate, anterior margin of rostrum weakly concave and

keeled. Antennae with 2nd segment a little longer than 3rd, 4th segment large, 5/3 times as long as wide, truncate obliquely at apex, gradually widening apically from 5th to 8th segments and almost conjoint to club, club a little shorter than 4th. 9th segment as long as wide, 10th segment transverse, 11th segment slightly longer than 9th.

Pronotum parallel-sided on basal two-thirds, basal carina weakly bisinuate, lateral angles nearly 90°, lateral carina weakly concave before the angle and reaching one-third from front angle, Iateral margin between front angle and apex of lateral carina forming rather sharp edge, front angle sharply pointed, disc closely punctate except anterior area, the punctures more or less longitudinally confluent.

Elytra parallel-sided, punctured striae much narrower than intervals, interstices of punctures on the same level as intervals.

Pygidium twice as wide as long, densely punctate and pubescent.

Underside covered with greyish pubescence mixed with brownish ones on metasternum and lateral margins of abdomen. Tibiae greyish with brown basal, median and apical rings. Tarsi also brownish at the base of 1st segment. Abdomen depressed longitudinally at middle.

♀. Antennae with 4th segment of normal size. Abdomen not depressed.

Length : 4.1-6.9 mm, breadth : 1.5-2.5 mm.

Type ♂ (Type No. 2115, Kyushu Univ.), Nishinakama, Amami-Oshima, l-7. VI. 1970, H. Makihara leg.

Paratypes: 24♂ *22* ♀, same data as type ; ♀ , Hatsuno, Amami-Oshima, 25. VII. 1962, Y. Miyake leg.; 1 ♀, Hatsuno, Amami-Oshima, 13-20. VI. 1963, J. Nagao leg. ; 1 ♀ , Ushikumori, Iriomote Isl., 11. X. 1963, S. Kuniyoshi leg. ; 4 ♀, Nakara River, Iriomote Isl., 25-28. VI. 1970, H. Makihara leg.

Distribution : Japan (Amami-Oshima and Iriomote Isls.).

This new species is very close to 0. *japonicus* Sharp, but the postmedian blackish band on the elytra is narrower, the elytra are more evenly griseous with small indistinct spots except for a blackish band, and the pronotum is sharply keeled laterally between the apex of the lateral carina and the front angle.

Ozotomerus nigromaculatus sp. nov. (Fig. 11, C; Photo. P)

Ozotomerus maculosus, Nakane (nec Perroud), Icon. Ins. Jap. Col. Nat. Ed., II: 350, pl. 175, fig. 15, 1963.

♂. Derm black; pubescnece grey mixed with brown irregularly, greyish pubescence denser along inside of eyes on frons and median line from head to pronotum, with several blackish pubescent spots, elytra with small black spots in a manner of line on alternate intervals and a pair of large subcircular spots from 2nd *to* 7th intervals behind middle. Underside, femora and tibiae evenly clothed with greyish pubescence; fore tars! black except greyish basal half of 1st segment, middle and hind tarsi greyish on 1st and basal parts of 2nd and 4th segments.

Head densely punctate, with a glossy median keel from frons to rostrum, anterior margin of rostrum concave and keeled. Antennae with 2nd segment much longer than 3rd and as long as lst, 4th segment large, nearly twice as

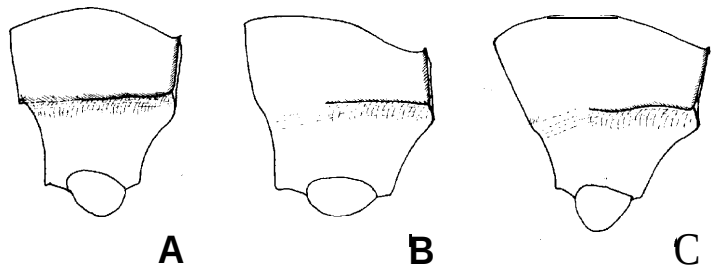


Fig. 11. Prothorax of *Ozotomerus* spp., lateral aspect. A: *amamianus*. B: *japonicus*. C: *nigromaculatus*.

long as wide, truncate obliquely at apex, 5th to 8th segments subequal in shape, club slightly longer than 4th, 9th segment a little longer than wide, 10th segment transverse, 11th segment subtriangular, much longer than wide.

Pronotum transverse (13 :11), parallel-sided on basal two-thirds, basal carina weakly curved posteriorly towards sides, angles of carina 90°, lateral carina reaching two-thirds from hind angle, lateral margin of pronotum between front angle and apex of lateral carina not edged, front angle indistinct, disc densely punctate.

Elytra parallel-sided, punctured striae weakly impressed, interstices of punctures as long as or a little longer than punctures and on the same level as intervals.

Pygidium transverse (5 :3), densely punctate, evenly rounded behind.

Mesosternal process with a median longitudinal depression. Abdomen flattened at middle.

♀. Antennae with 4th segment of normal size. Abdomen not flattened at middle.

Length: 6.5–8.1 mm, breadth: 2.3-3.0 mm.

Type♂ (Type No. 2116, Kyushu Univ.), Oku, Okinawa Isl., 16. V. 1978. H. Makihara leg.

Paratypes: 4♂, sam data as type; 1♀, Yonahadake, Okinawa, 22. V. 1976, T. Ogasawara leg.; 1♀, Hiji, Okinawa, 8. VII. 1974, T. Mikage leg.; 1♀, Yona, Okinawa, 19. V. 1978, H. Makihara leg.; 1♂, Cape Sata, Kagoshima Pref., 30. V. 1953, S. Kimoto leg. ;1♂3♀, Cape Sata, Kagoshima Pref., 4. VII. 1968, K. Suga leg. ; 1♂, Yabe, Kumamoto Pref., 29. VI. 1975, I. Ohtsuka leg. ;1♂, Mt. Fukuchi, Fukuoka Pref., 27. VII. 1970, H. Makihara leg.

Distribution : Japan (Shikoku, Kyushu, Okinawa Isl.).

KEY TO SPECIES OF THE GENUS *Ozotomerus*

1 : Elytra with a greyish conjoint large spot on declivity limited anteriorly by blackish transverse band 2

1′ : Elytra with a pair of large black spots a little behind middle 5

2 : Pronotum with a pentagonal greyish large patch; pronotum sharply keeled laterally in entire length. (Philippines) ..... **Ozotomerus discoidalis** Jordan

2′ : Pronotum without a pentagonal patch 3

3 : Elytra with a greyish band running obliquely from scutellum to the middle of lateral margin ; pronotum weakly convex laterally between lateral carina and front angle, the latter distinct. (New Guinea, Aru, Woodlark) ..... **Ozotomerus bipunctatus** Montrouzier

3' : Elytra without such band 4

4 : Pronotum sharply keeled laterally between lateral carina and front angle, postmedian band on elytra narrwer. (Amami-Oshima and Iriomote Isls.)..... **Ozotomerus amamianus** Morimoto

4' : Pronotum not keeled laterally between lateral carina and front angle, the latter indistinct, transverse band on elytra broader. (Japan) ..... **Ozotomerus japonicus** Sharp

5 : Pronotum sharply edged laterally, front angles distinct 6

5' : Pronotum scarcely edged laterally, front angles indistinct. (Japan, Okinawa Isl.) ..... **Ozotomerus nigromaculatus** Morimoto

6 : Pronotum unpunctured on the apical one-third; black spots on elytra circular, (Borneo, Malay)..... **Ozotomerus rugicollis** Jordan

6' : Pronotum punctate throughout, densely covered with scales; black spots on elytra oval or crescent, brownish stripes run latero-posteriorly from the spots. (India, Laos)..... **Ozotomerus maculosus** Perroud

Tribe BASITROPINI

Basitropides vrais Lacordaire, Gen. Col. VII: 567, 1866.
Basitropini Morimoto, Bull. Gov. Forest Exp. Sta. (246) : 37, 1972.

Basitropis Jekel

Basitropis Jekel, Ins. Saund., I: 90, 1855 (Type: *Eugonus nitidicollis* Chevrolat, by original designation, *B. nitidicutis* Jekel)

Basitropis nitidicutis Jekel (Photo. Q)

Basitropis nitidicutis Jekel, Ins. Saund., I: 92, 1855 (Java, India).
Basitropis dispar Sharp, Trans. Ent. Soc. London, 1891: 320, 1891 (Nikko).

Specimens examined: 1♀, Yunomata, Shimokita, Aomori Pref., 27. VII. 1956, K. Morimoto leg.; 1♀, Mt. Kumado, Fukuoka Pref., 19. IV. 1958, Y. Miyake leg.

Distribution : Japan (Honshu, Kyushu), Taiwan, Indo-China, Borneo, Java, India, Ceylon.

Basitropis seinoi **sp. nov.** (Fig. 10, E, F; Photo. R)

♂. Derm black, with reddish dark brown tibiae, bases of femora and trochanters; ochreous pubescence forming many stripes, head and rostrum with a pair of stripes along inner margin of eyes to apex of rostrum, head further with a median stripe; pronotum with three broad stripes, a pair of short stripes running continuously from lateral stripes of head, and with one or two pairs of small spots on each side of median stripe at middle; scutellum ochreous ; elytra with stripes on odd intervals with several blackish breaks and

narrow bands connecting stripes on even intervals. Pygidium with a pair of broad lateral and a narrow median stripes. Legs with ochreous grey pubescence on fore femora, apical area of middle and hind femora and median broad area of tibiae. Underside with ochreous pubescence on median and lateral areas of prosternum, lateral pieces of meso- and metathorax, lateroposterior areas of metasternum, 1st ventrite except median area and lateroposterior corners of 2nd to 5th ventrites.

Head punctate, the interspaces of punctures as broad as punctures ; rostrum slightly and evenly constricted at middle, dorsal surface as long as wide, with a narrow median stria from frons to the middle. Antennae with 2nd segment the shortest and narrowest, 3rd segment three times as long as 2nd and nearly as long as 4th, 5th segment a little shorter than 4th and as long as 6th, 7th to 11th segments forming club, 7th segment 1.5 times as long as wide and distinctly longer than 8th, 9th and 10th segments transverse.

Pronotum broader than long (10 : 9), basal carina weakly bisinuate, lateral carina nearly straight seen from side and reaching a little behind apex.

Elytra marginate at base, striae with small shallow punctures, the interstices of punctures as long as or slightly longer than the punctures; intervals flat, impunctate.

Pygidium broader than long (5 : 4), subtruncate at apex.

Prosternum and metasternum sparsely with large punctures at side. Venter very sparsely with small punctures.

♀. Antennae shorter, 8th to 11th segments forming clubs. Rostrum broader than long (5 : 4). Abdomen not depressed at middle.

Length : 5.8-9.9 mm, breadth : 2.1-4.0 mm.

Type ♂ (Type No. 2117, Kyushu Univ.), Kuwanokiyama, Haha-jima, Ogasawara Isls., 8. VI. 1976, T. Seino leg.

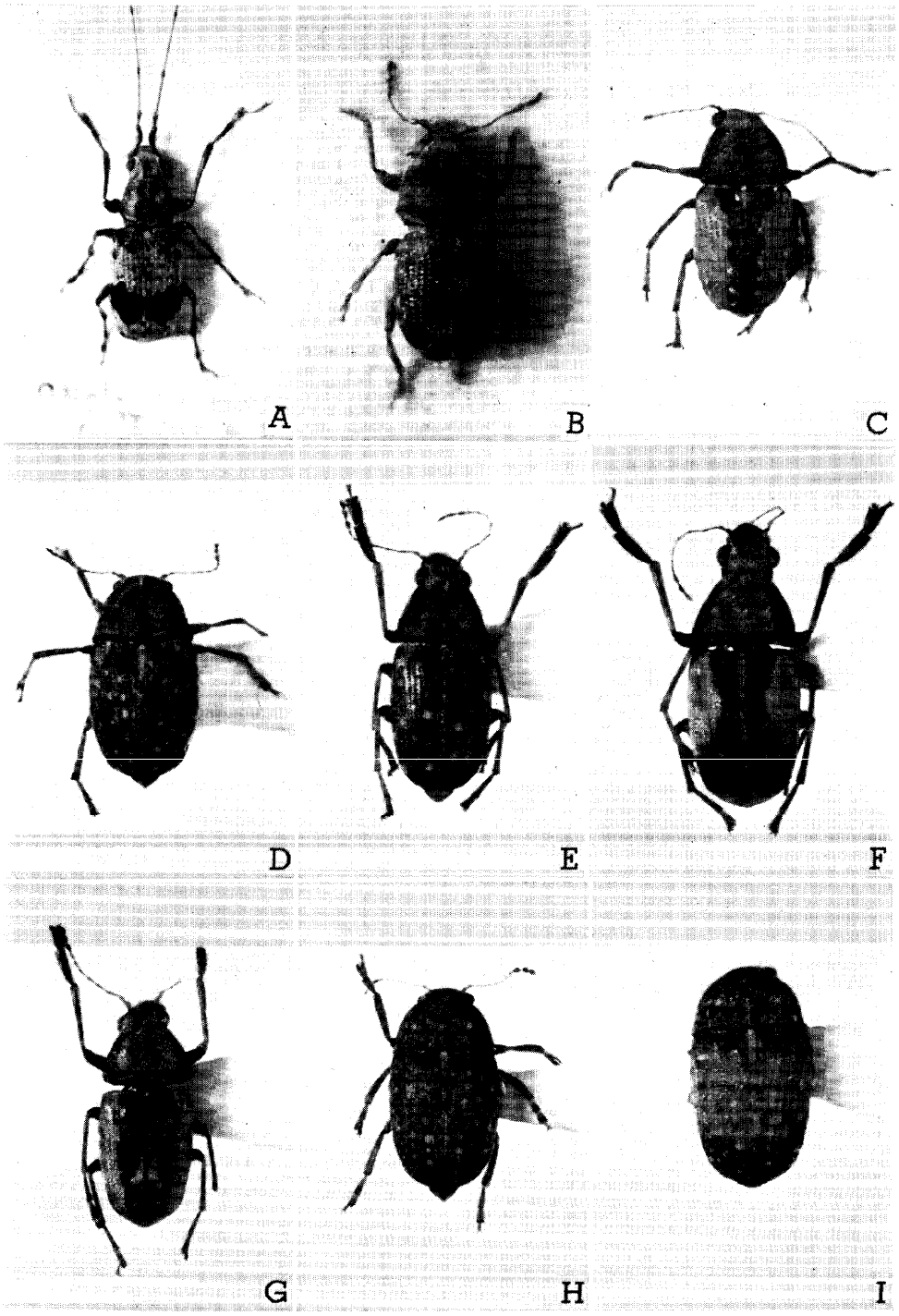
Paratypes: 1 ♀, same data as type; 1♂1♀, Hyogitaira, Haha-jima, 5-6. VI. 1973, H. Fujita leg.; 1♂1♀, Hyogitaira, Haha-jima, 7. VI. 1975, T. Seino leg. ; 1♀, Ogiura, Chichi-jima, 12. VI. 1973, H. Fujita leg.

Distribution : Japan (Ogasawara Isls.: Haha-jima, Chichi-jima).

This new species is easily recognized by the pubescent markings.

Explanation of photographs

A. ***Apolecta lewisii*** Sharp, type, Kurigahara.
B. *Notioxenus* ***wollastoni*** Sharp, type, Higo.
C-D. ***Araecerus*** *fasciculatus* Degeer, C: Nakanoshima, D: Iki.
E-G. Araecerus *varians* Jordan, Haha-jima.
H- I. ***Araecerus ishigakiensis*** sp. nov., paratype, Ishigaki.
J. ***Anthribus vandykei*** Jordan (= ***kuwanai*** Yuasa), paratype, Nanking.
K. ***Anthribus niveovariegatus*** Roelofs, type, Nagasaki.
L. ***Euparius*** *oculatus* Sharp, type, Otsu.
M. ***Euparius*** *concolor* sp. nov., paratype, Okinawa.
N. ***Ozotomerus*** *japonicus* Sharp, type, Nishi no Mura.
0. ***Ozotomerus amamianus*** sp. nov., paratype, Amami-Oshima.
P. ***Ozotomerus nigromaculatus*** sp. nov., paratype, Cape Sata.
Q. Basitropis *dispar* Sharp (= ***nitidicutis*** Jekel), type, Nikko.
R. ***Basitropis seinoi*** sp. nov., type, Haha-jima.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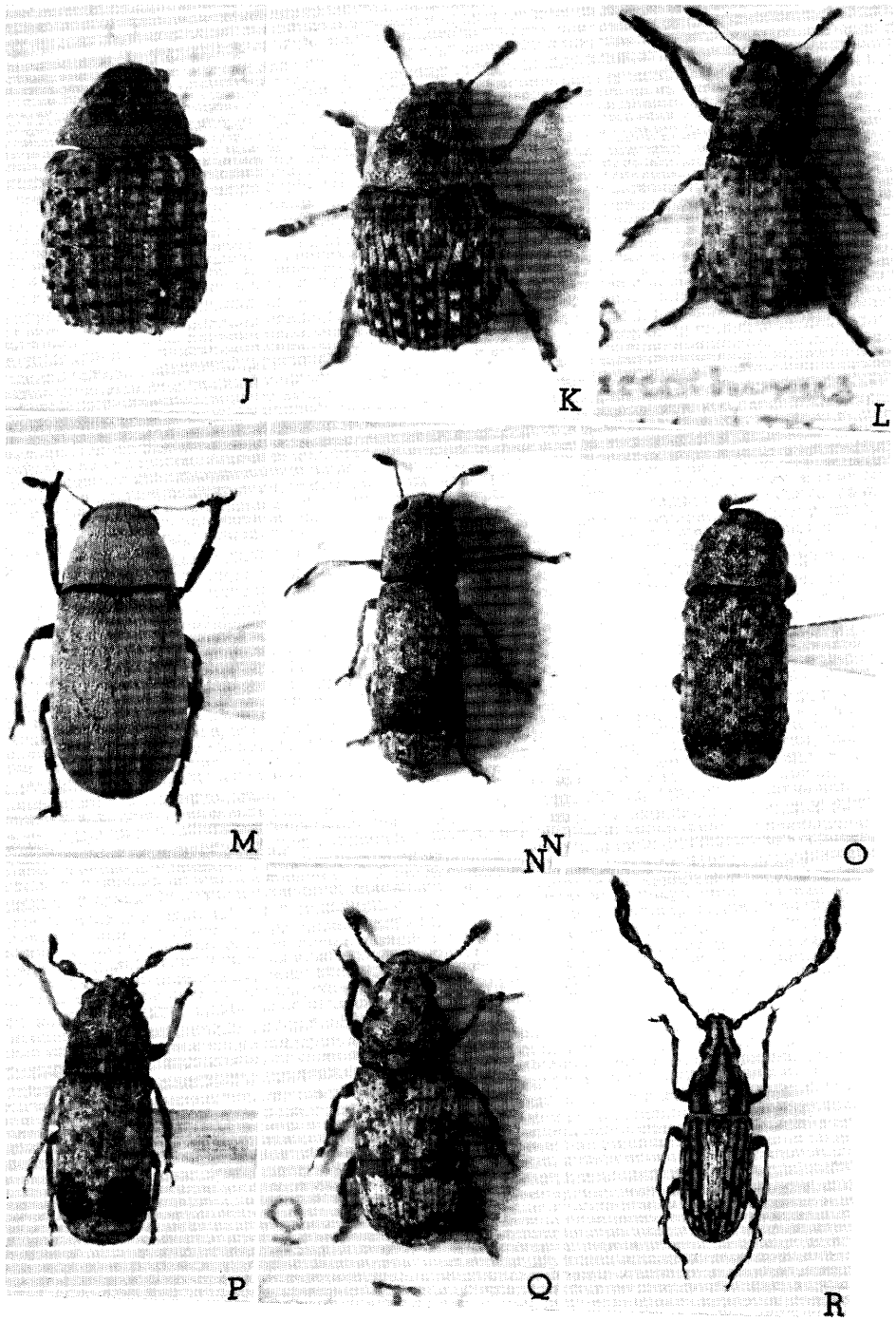
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